

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A casting process comprising the steps of:  
mixing together one or more kinds of an aggregate granular material, one or more kinds of a water-soluble binder, and water, to form a mixture of said aggregate granular material, and agitating said mixture to cause the mixture to foam and form a foamed mixture;

charging said foamed mixture into a molding space, and evaporating moisture within said charged mixture by heating the mixture to harden said charged mixture and mold a mold with said hardened mixture, wherein the foamed mixture is charged into the molding space such that the distribution of foam within the aggregate granular material and the moisture content of the binder are concentrated in a center portion of the mold so that after the moisture is evaporated, the center portion of the mold has a lower density of the aggregate granular material than outer portions of the mold;

assembling at least one mold made from said hardened mixture and a mating mold to form a completed mold;

pouring molten metal into said completed mold, wherein the temperature of the molten metal evaporates or dissolves the water-soluble binder in the mold;

removing said completed mold from a cast article that is composed of solidified molten metal during a process of cooling said cast article after said molten metal solidifies; and

applying a heat treatment to said cast article,

wherein said one or more kinds of said water-soluble binder is at least either a polyvinyl alcohol or a derivative thereof, or at least either a starch or a derivative thereof.

2. (Previously Presented) A casting process as recited in claim 1, wherein said at least one mold that is made from said hardened mixture is a core, and said mating mold is a master mold.

3. (Previously Presented) A casting process as recited in claim 2, wherein said master mold is a metal mold.

4. (Previously Presented) A casting process as recited in claim 2, wherein said master mold is a sand mold.

5. (Previously Presented) A casting process as recited in claim 1, further comprising steps of returning said aggregate granular material, and recovering said returned aggregate granular material.

6. (Original) A casting process as recited in claim 5, further comprising steps of recycling and using said returned and recovered aggregate granular material for molding a mold.

7. (Original) A casting process as recited in claim 5 or 6, wherein said steps of returning and recovering said aggregate granular material are mechanical recovering processes.

8. (Withdrawn) A casting process as recited in claim 1, wherein said cast article is cast in an aluminum alloy or a magnesium alloy.

9. (Withdrawn) A casting process as recited in claim 8, wherein said heat treatment is a T6 treatment or a T7 treatment.

10. (Withdrawn) A casting process as recited in claim 1, wherein said cast article is cast in a casting iron, a casting steel, or a ferrous alloy.

11. (Withdrawn) A casting process as recited in claim 1, wherein said cast article is cast in a copper alloy.

12. (Previously Presented) A casting process as recited in claim 1, wherein said step of removing said completed mold from said cast article is to apply shakes to said mold.

13. (Previously Presented) A casting process as recited in claim 12, wherein said step of applying said shakes to said mold includes impact forces of less than 1MPa at an operating frequency at less than 30Hz being applied to said mold for less than 30 seconds, within from 5 to 20 minutes after said molten metal is poured.

14-15. (Cancelled).